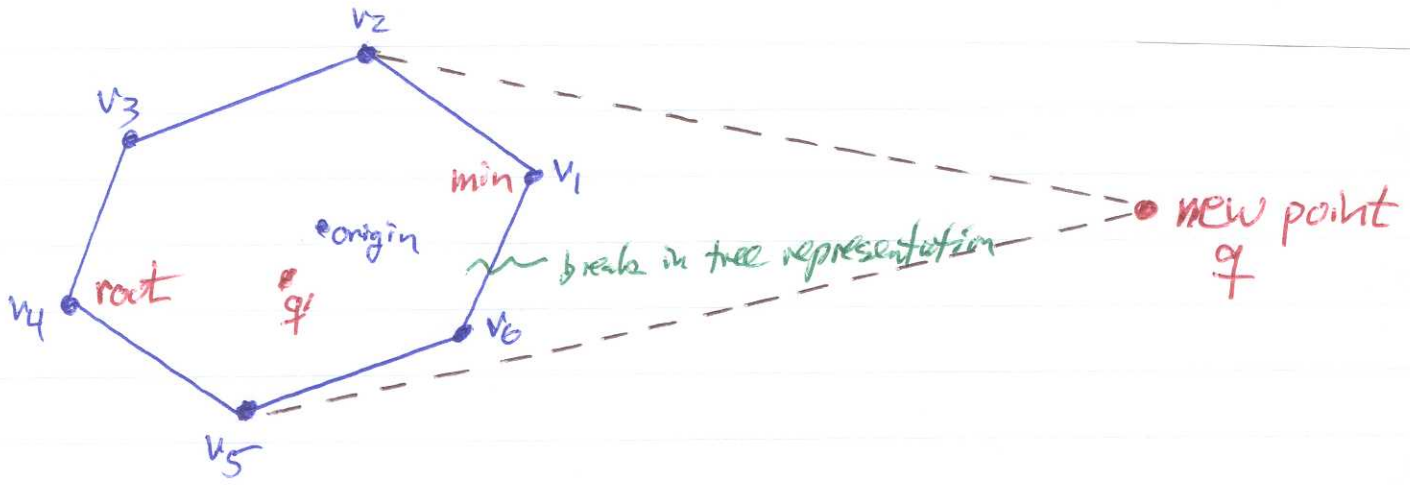

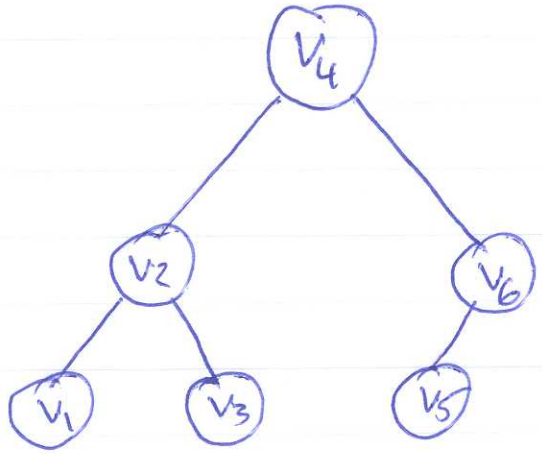

- Examine local geometry of q relative to v_4. That tells us the two supporting vertices (if they exist) lie in both subtrees below v_4.
- Local geometry at v_2 then tells us v_2 is a supporting vertex.
- Local geometry at v_6 tells us to search its right subtree.
  Then at v_5 we find the other supporting vertex.

Note: A similar search with q' would eventually tell us q' is interior to the convex polygon.

Why? Arrive at leaves w/o finding supporting vertices.